

CLAIMS

1. Device for dynamic tensioning of a natural or prosthetic knee joint, with or without a tibial cut being carried out, of the type comprising at least one femoral insert (8A) which has a condyle support surface (20A) for a femoral implant or bone; at least one tibial insert (10A) which has a support surface (24A) for a tibial plate for a tibial implant or bone; and means (4A, 30A) for applying, between the femoral and tibial inserts, a distraction force of a predetermined strength, with or without the kneecap being in position, characterised in that it is constructed so as to allow rotation of the joint and comprises means for maintaining the knee in a state of tension during rotation, and thus carrying out measurements for various angles of rotation.
2. Device according to claim 1, characterised in that the condyle support surface (20A) is in the form of a dish.
3. Device according to either claim 1 or claim 2, characterised in that the condyle support surface (20A) is provided with sliding means (12A) for the femoral implant or bone when the knee joint is displaced.
4. Device according to claim 3, characterised in that the sliding means comprise juxtaposed rollers (12A).
5. Device according to either claim 3 or claim 4, characterised in that the sliding means comprise juxtaposed ball-bearings.
6. Device according to any one of the preceding claims, characterised in that the condyle support surface (20A) is

substantially cylindrical, having an axis (X-X) which is substantially transverse relative to the direction of distraction.

7. Device according to any one of the preceding claims, characterised in that the maximum thickness of each femoral insert (8A, 8B) and tibial insert (10A, 10B) is less than or equal to 2.5 mm.

8. Device according to any one of the preceding claims, characterised in that a femoral insert (8A, 8B), and optionally a tibial insert (10A, 10B), is/are provided for each inner and outer compartment of the knee joint.

9. Device according to any one of the preceding claims, characterised in that it comprises means for measuring the spacing of the condyle support surfaces (20A) and tibial plate support surfaces (24A), which means are capable of continuously measuring the spacing between the support surfaces when the knee joint is displaced.

10. Device according to any one of the preceding claims, characterised in that it comprises means (42A) for measuring the distraction force between the femoral inserts (8A) and tibial inserts (10A), which means are capable of continuously measuring the variation of the strength of the distraction force around the predetermined strength thereof when the knee joint is displaced.

11. Device according to any one of the preceding claims, characterised in that the means for applying the distraction force comprise a force generation unit (30A) and a pair of

branches (4A) which connect the generation unit to the femoral inserts (8A) and tibial inserts (10A).